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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,812	10/30/2003	Michele Covell	200313228-1	2456

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EXAMINER

HOANG, HIEU T

ART UNIT	PAPER NUMBER
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2152

NOTIFICATION DATE	DELIVERY MODE
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09/25/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/698,812	Applicant(s) COVELL ET AL.	
	Examiner HIEU T. HOANG	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/10/2008 has been entered.
2. Claims 1-44 are pending.

Response to Arguments

3. Applicant's arguments have been fully considered but they are moot in view of new ground of rejection.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the computer storage medium recited in claims 35-44 is not disclosed in the specification. Correction is required.

Claim Objections

5. Claims 36-44 are objected to because of the following informalities: the claim recites "the medium," which lacks antecedent basis.

6. Claim 16 recites "said service manager," which lacks antecedent basis.
7. Applicant is requested to check for similar errors in the pending claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 2 and 15-23 are rejected under 35 U.S.C. 101 the claimed invention is directed to non-statutory subject matter. The claims are system claims. However, the service location manager recited in the claim bodies is best understood as a software module for carrying out steps, given that no explicit hardware embodiments of the module can be found in the specifications, also fig. 2 describing a service location manager as software, and page 7 defines a service location manager as a logical entity. Therefore, the claims are directed to non-statutory subject matter. Correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-7, 12-17, 22-27, 35-37, 42-44 are rejected under 35 U.S.C. 102(a) as being unpatentable over Pranata et al. (Development of Network Service Infrastructure For Transcoding Multimedia Streams, hereafter Pranata, 2002), in view of Smith et al. (US 6,970,602, hereafter Smith)

11. For claim 1, Pranata discloses a method of selecting a media service provider based on static resource information, said method comprising:

- identifying a type of service that needs to be performed on an item of content requested by a client device and supplied by a content source before a service result is provided to a client device (5.2.3, client request for a media stream from a server as in fig. 5.8, section 6.4, client, a client requesting for a stream from a content provider at the URL) (fig. 5.8, 5.9 and description on page 40, e.g. steps 4-5, find a corresponding transcoder for transcoding the requested media stream before sending the stream to the client; the transcoder identified by a service broker and a service lookup module), and said type of service comprises processing said item of content (page 40, e.g. steps 4-5, find a corresponding transcoder for transcoding the requested media stream)
- wherein said item of content is identified during a session with a client device (6.4, client-content source streaming session); and
- selecting a service provider from a plurality of service providers (4.3.4, fig. 5.4 select a most appropriate transcoder) based on static service provider

information and static network information (fig. 5-3, list A, page 32, par. 1, page 33 par. 1, selecting a transcoder or service provider based on static transcoder's information, e.g. supported transcoding formats of the transcoders, 5.1.2, par. 3, selecting a transcoder based on static network information such as available bandwidth, delay, jitter), said selecting of a service provider further based on service session information if said service session information has been received (fig. 5-3, list B, page 32 par. 2, selecting transcoders based on whether or not the transcoders have received and cached source media or service session information); and further based on said identifying said type of service (fig. 5.8, 5.9 and description on page 40, e.g. steps 4-5, find a corresponding transcoder for transcoding the requested media stream before sending the stream to the client)

- providing information for transferring said session to said service provider of said type of service (fig. 5.9, transcoder requests stream session to server and receives the stream), wherein said service provider of said type of service performs said type of service on said item of content if said type of service is needed (fig. 5-8, page 40 steps 4, 5, 10 and 11, task of transcoding the requested stream is assigned to the selected transcoder, the transcoder then transcodes the stream received from the server then transmits to the client).

Pranata does not disclose said type of service is selected from a group of services consisting of processing said item of content and providing an analysis of said item of content;

However, Smith discloses a list of services consisting of processing said item of content and providing an analysis of said item of content (fig. 1, content analysis module 109 and content transcoder module 107, col. 2 lines 57-67, content analysis for analyzing the features, purposes and relevancies of the multimedia objects)

It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Pranata and Smith to select a service including content analysis and content processing to be performed on the content to provide more available services and functionalities to the system of Pranata.

12. For claim 2, Pranata discloses a system for providing content to a client device, said system comprising:

- a service location manager that performs a selection of a service provider from among a plurality of service providers that is capable of performing a needed type of service on an item of content requested by a client device and supplied by a content source (fig. 5-8, section 6.4, or fig. 5-10, page 43, client, a client requesting for a stream from a content provider at the URL, a corresponding transcoder for transcoding that stream will be located by a broker and a service lookup module); said selection based on static service provider information and static network information (fig. 5-3, list A, page 32, par. 1, page 33 par. 1, selecting a transcoder or service provider based on static transcoder's information, e.g. supported transcoding formats of the transcoders, 5.1.2, par. 3,

selecting a transcoder based on static network information such as available bandwidth, delay, jitter);

- and said type of service comprises processing said item of content (page 40, e.g. steps 4-5, find a corresponding transcoder for transcoding the requested media stream)
- said item of content and type of service to be performed on said item of content are identified during a session with said client device (5.2.3, session of client requesting for a media stream from a server as in fig. 5.8, section 6.4, client, session of a client requesting for a stream from a content provider at the URL, page 68 last par., client-content source session for receiving the stream content), wherein said type of service is identified before a service result is provided to said client device (fig. 5-8, section 6.4, or fig. 5-10, page 40 steps 4-5 and 10-11, a transcoder is identified for transcoding stream received from server then transmitting it to client);
- said service location manager further selecting said service provider of said type of service based on service session information if said service session information has been received (fig. 5-3, list B, page 32 par. 2, selecting transcoders based on whether or not the transcoders have received and cached source media or service session information).

Pranata does not disclose said type of service is selected from a group of services consisting of processing said item of content and providing an analysis of said item of content;

However, Smith discloses a list of services consisting of processing said item of content and providing an analysis of said item of content (fig. 1, content analysis module 109 and content transcoder module 107, col. 2 lines 57-67, content analysis for analyzing the features, purposes and relevancies of the multimedia objects)

It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Pranata and Smith to select a service including content analysis and content processing to be performed on the content to provide more available services and functionalities to the system of Pranata.

13. For claims 3 and 4, the claims are rejected for the same rationale in claim 1.

14. For claim 5, the claim is rejected for the same rationale as in claim 1. Pranata-Smith further discloses that the item of content is an item of streaming content (Pranata, title, multimedia streams)

15. For claims 25 and 35, the claims are rejected for the same rationale in claim 5.

16. For claim 15, the claim is rejected for the same rationale in claim 2.

17. For claims 6, 16, 26 and 36, Pranata-Smith further discloses said static service provider and network information is accessible by a service location manager (Pranata, fig. 5-8, 5-10, fig. 5-3, list A, page 32, par. 1, page 33 par. 1, 5.1.2, par. 3, service broker

is a service location manager that is linked to lookup service and transcoders--service providers, a service broker uses transcoders' information such as supported transcoding formats and network information to find a most appropriate transcoder).

18. For claims 7, 17, 27 and 37, Pranata-Smith further discloses said static service provider and network information comprises information concerning computational and memory resources, connectivity and expected bandwidth and latency between servers (Pranata, 5.1.2, network requirement), client and content addresses (Pranata, 6.2.1, 6.2.1.2, address), session dispatch history (Pranata, session cached or not using client and content addresses), network proximity (Pranata, 6.2.3, page 64 last par., fig. 6-4, location) and the identity of special purpose hardware (Pranata, 5.1.2, hardware requirement).

19. For claims 12, 22, and 42, Pranata does not disclose said streaming content is serviced and delivered to a client device as it is received. However, Smith discloses the same (col. 3 lines 65-66, col. 4 lines 63-66, cached content is received and delivered as is to clients). It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Smith and Pranata to deliver cached content as is to save computing resources.

20. For claims 13, 14, 23, 24, 43 and 44, Pranata does not disclose non streamed content is generated from said streaming content by said service provider; and said

streaming content is serviced by said service provider and delivered to a client device as a non streamed file.

However, Smith discloses analyzing streaming content to generate a non-stream content for a client (abstract, col. 4 lines 39-45, speech to text converting)

It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Pranata and Smith to generate and deliver to the clients non-stream content from stream content to so that clients which can only receive non-stream content can use the service, and further reduce networking cost of delivering content.

21. Claims 9-11, 19-21, 24, 29-34 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pranata, Smith, in view of Ma et al. (Content Services Network: The Architecture and Protocols, hereafter Ma, 2001, cited in IDS).

22. For claims 9, 19, 29 and 39, Pranata-Smith does not disclose said service session information comprises service session initiation and termination information. However, Ma discloses using a predistribution service wherein result of previous request and response for a service (session initiation and termination) is cached for reuse (section 4, par. 6, 4.1, par. 3, fig. 3, steps 1-5, searching for cache hit at the caching proxy)

23. For claims 10, 20, 30 and 40, Pranata-Smith does not disclose said initiation and termination information provides information regarding the computational resources

used in previous sessions. However, Ma discloses computational resources used in a session (table 1, resources, section 2 par. 1, computational resources to process content in a previous session, section 4 par. 6). It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Pranata, Smith and Ma to cache session information including computational resources to efficiently cache retrieve content.

24. For claims 11, 21, 31 and 41, Pranata-Smith does not disclose said session dispatch history comprises information concerning content length. However, Ma discloses caching previous session including time for expiring cached content (fig. 3, steps 1 and 5, 4.1 par. 3, expiration time of content cached). It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Pranata, Smith and Ma to store history of session including content length time to efficiently cache retrieve content.

25. Claims 24 is rejected for the same rational as in claim 14.

26. Claims 32-34 are rejected for the same rational as in claims 12-14 respectively.

27. Claims 8, 18, 28 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pranata, Smith, in view of Walter et al. (US 7,277,431, hereafter Walter).

28. For claims 8, 18, 28 and 38, Pranata-Smith does not disclose said special purpose hardware comprises compression hardware. However, Walter discloses the same (abstract, encryption and compression hardware for traffic that needs to be encrypted and/or compressed)

It would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Pranata-Smith and Walter to further identify a service for a content based on security requirements to provide services with more security.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is included in form PTO 392.

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu T. Hoang whose telephone number is 571-270-1253. The examiner can normally be reached on Monday-Thursday, 8 a.m.-5 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2152

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HH

/Kenny S Lin/
Primary Examiner, Art Unit 2152